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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,184	01/20/2004	Michael Alan Miles	011765-0307460	7708

909 7590 11/16/2006

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EXAMINER	
YU, JAE UN	
ART UNIT	**PAPER NUMBER**
2185	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/759,184	MILES, MICHAEL ALAN	
	Examiner	Art Unit	
	Jae U. Yu	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-51* is/are pending in the application.

4a) Of the above claim(s) *1-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *15-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges the applicant's election dated 8/17/06. Thus, claims 15-51 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 15-51 are rejected under 35 U.S.C. 102(b) as being anticipated by Teo et al. (US 2003/0002190).

2. **Independent claims 15, 22, 27, 32, 48 and 51** disclose; "(A) positioning the write element **[Element 15, Figure 6]** over substantially the whole of a track on the storage medium, (B) writing a complete full width logic field **["S/F" 32 written on a track, Figure 6]** of a servo frame to said track with the write element,

(C) writing a first portion of the position field **[Writing "PLL Field" 28, Figure 8]** of said servo frame to a first part of said track with the write element,

(D) moving the write element relative to the storage medium such that a second portion of said position filed **[The storage medium rotates in the direction of the arrow to**

align the write element with the "User Data" 26, Figure 8] of said servo frame of said track can be written at a position that is at least spaced laterally of the track from said first portion **["PLL Field" 28, Figure 6]**, (E) during the movement in step (D), reading at least a portion of at least one of (i) said logic filed of said servo frame of said track and (ii) a logic filed of a servo frame of another track **[Reading the next "S/F" 32, Figure 9]**, in order to allow said portion of the logic field to be verified,

(F) writing said second portion **[Writing "User Data" 26, Figure 8]** of said position filed of said servo frame of said track at a position that is at least spaced laterally of the track from said first portion **["PLL Field" 28, Figure 8]** with the write element, and

(G) repeating steps (A) to (F) as required for subsequent tracks **[Paragraph 11]** on the storage medium.

3. **Independent claims 35 and 37** disclose; "(A) positioning the write element **[Element 15, Figure 6]** over substantially the whole of a track on the storage medium, (B) writing a certification pattern **["writing a bit pattern to the track", Paragraph 7]** to a data area of said track with the write element",

(C) repositioning the write element **[rotation causes write element reposition, Figure 8]**, (D) reading at least a portion of said certification pattern using **["reading the bit**

pattern", Paragraph 8] the read element in order to allow the integrity of said data area to be checked **[checking the bit error rate, Paragraph 9]**, and

(E) repeating steps (A) to (D) as required for subsequent tracks **[Paragraph 11]** on the storage medium.

4. **Independent claims 38 and 45** disclose; "(A) positioning the write element **[Element 15, Figure 6]** over substantially the whole of a track on the storage medium, (B) writing a complete full width logic filed **["S/F" 32 written on a track, Figure 6]** of a servo frame to said track with the write element,

(C) writing a first portion of the position field **[Writing a first portion of "PLL Field" 28, Figure 8]** of said servo frame to said track with the write element,

(D) writing a certification pattern **["writing a bit pattern to the track", Paragraph 7]** to a data area of said track with the write element,

(E) moving the write element relative to the storage medium to a position over said track such that a second portion of said position filed **[The storage medium rotates in the direction of the arrow to align the write element with the second portion of the "PLL Field", Figure 8]** of said servo frame of said track can be written at a position that is at least spaced laterally of the track from said first portion, (F) during the movement in

step (E), reading a portion of at least one of (i) said logic field of said servo frame of said track and (ii) a logic field of a servo frame of another track **[Reading the next "S/F" 32, Figure 9]**, in order to allow said portion of the logic field to be verified",

(G) writing said second portion of said position field **[Writing the second portion of the "PLL Field", Figure 8]** of said servo frame of said track at a position that is at least spaced laterally of the track from said first position **[The "first portion" of the "PLL Field", Figure 8]** with the write element,

(H) reading at least a portion of said certification pattern **["reading the bit pattern", Paragraph 8]** using the read element in order to allow the integrity of said data area to be checked **[checking the bit error rate, Paragraph 9]**, and (I) repeating steps (A) to (H) as required for subsequent tracks **[Paragraph 11]** on the storage medium.

5. **Claims 17, 29 and 36** disclose, "repeating steps (B) and (C) as required for further servo frames of said track prior to carrying out step (D) and then repeating steps (D) to (F) as required for said further servo frames **[Paragraph 11]**".

6. **Claims 18 and 30** disclose, "carrying out steps (A) to (G) for at least all tracks in a user data area of the storage medium **[Paragraph 11]**".

7. **Claims 19, 24, 42 and 46** disclose, "reading a position field of a servo frame of another track **[reading a "ID Data field" (Figure 4) of the next "S/F" (Figure 9)]** whilst moving the write element in step (D)".

8. **Claims 20, 25, 31, 34, 43 and 47** disclose, "the position filed is demodulated to provide a position error signal **[the "ID Data field" comprising digital data encoded with a grey code identifying the "track number" and a "position error signal", Paragraph 56]** that is used to control the movement of the head".

9. **Claims 21, 26, 41 and 44** disclose, "the position fields/logic fields of at least all tracks **[Paragraph 11]** in a user data area of the storage medium are read".

10. **Claim 39** discloses, "said previously written logic field is written in a first pass **["Write" element, Figure 6]** of the head over the storage medium and is read in a second pass of the head **["Read" element following the "Write" element, Figure 6]** over the storage medium".

11. **Claim 40** discloses, "a first portion of said position field is written **[Writing a first portion of "PLL Field" 28, Figure 8]** in said first pass of the head over the storage medium and a second portion of said position field is written **[Writing the second portion of the "PLL Field", Figure 8]** in said second pass of the head over the storage medium".

12. **Claim 49** discloses, "the read element has a width **[Element 11, Figure 6]** that is substantially equal to the pitch **[Element 33, Figure 6]** of the tracks of a said storage medium".

13. **Claim 50** discloses, "the separation between the read and write elements is such that the read element can read the entire previously written logic field **[reading "S/F", Figure 13]** of a servo frame of a track of the storage medium whilst the write element is moving towards the position where it writes at least a portion of a position field **[moving towards the "PLL Field" of the previous track, Figure 13]** of a servo frame of another track of the storage medium".

14. **Claims 16, 23, 28 and 33** disclose, "the reading in step (E) takes place during said longitudinal movement **[the arrow representing the longitudinal movement, Figure 7]**".

Conclusion

A. Claims Rejected in the Application

Per the instant office action, claims 15-51 have received a first action on the merits and are subject of a first action non-final.

B. Claims No Longer Under Consideration by Examiner

Claims 1-14 were withdrawn from consideration as a result of the applicant's election dated 8/17/06.

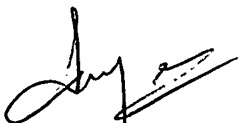
C. Direction of Future Correspondences

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jae Un Yu who is normally available from 9:00 A.M. to 5:30 P.M. Monday thru Friday and can be reached at the following telephone number: (571) 272-1133.

If attempts to reach the above noted examiner by telephone are unsuccessful, the Examiner's supervisor, Sanjiv Shah, can be reached at the following telephone number: (571) 272-4098.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/12/2006



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